

vessels. In a lesser degree of inflammation, the blood is only accelerated in its motion, and does not approach to a complete stasis; the centripetal undulations are also visible, but ultimately the blood is carried into the veins. In such cases the inflamed parts exhibit hardly any redness after death.

It appears, that in some organs, inflammation is more disposed to form the inflammatory centres described above, than in others; in the latter division, to which the serous membranes seem especially to belong, exudation is most frequently observed. If cold water is injected into the peritoneal cavity, inflammation is soon excited, and quickly followed by exudation; the afflux of blood is so violent, as to make the membrane appear like a net-work of injected vessels; from the moment that life ceases, the blood gradually leaves them, and is completely poured into the veins, so that, after death, but very slight traces of the preceding inflammation can be perceived.

The abdomen of an animal being opened, or its intestines and mesentery being drawn out, the contact of atmospheric air soon causes inflammation, which increases very rapidly in the mesentery, but slowly in the intestines. When, however, it has arrived at a certain pitch in the latter, it suddenly diminishes in the former, and gradually subsides, till at last its vessels are emptied, and the inflammation is confined to the intestines alone. The same phenomenon takes place if the mesentery is first irritated, and the intestine is afterwards exposed to any exciting cause. It seems, then, that inflammation is much more readily excited in the serous membranes, than in the organs which they envelope, but that it subsides very rapidly, and in the same proportion as it increases in the intestines. The tissue of the lungs appears also to be little disposed to form inflammatory centres, while in the liver the contrary obtains. The circulation of the latter organ is, even in the state of health, very slow and favourable to considerable accumulation of blood; in inflammation it is first accelerated, but gradually retarded, and lastly, a complete stagnation takes place. The same is observed in inflammation of the spleen.

Violent inflammation of the mucous intestinal membrane, often leaves no traces whatever; the blood with which, during life, the capillary vessels were gorged, is, after death, so completely conveyed into the veins, as to render this membrane almost as pale as in its healthy state; this is even most striking in the most acute inflammation, so that, in this respect, the mucous are apparently very similar to the serous membranes.

When the capillary vessels are wounded, scarcely any extravasation appears to take place, only a few globules escape, and the circulation through the wounded vessels is not at all disturbed, but continues as before. If very small arteries are divided, the hæmorrhage is also very trifling; but the blood ceases to circulate through the wounded vessels, and passes entirely into the arterial branch next above the division. When a larger artery is divided, a considerable hæmorrhage ensues from the two ends, and the blood of the neighbouring arteries is seen moving towards the wound as towards a centre; after some time, an undulatory motion is observed in the ends of the arteries, so that, at one moment, the blood moves towards the point of division, and, in the next, returns into the vessel; these undulations gradually decrease, till the movement of the blood, towards the divided extremities, ceases entirely, the blood being carried through the next arterial branches.

#### PATHOLOGY.

13. *Case of Rupture of the Right Auricle of the Heart.* By R. RUTHERFORD, Esq. Surgeon.—A woman aged twenty-four years, who had been four years before subject to *deep mental inquietude*, since when she has suffered frequently from palpitation of the heart, her lips becoming at such times purple, and her whole countenance assuming a cadaverous appearance, was attacked, Novem-

ber 10th, 1825, with a fit, which was described as resembling epilepsy; she was incapable at the time of articulation, and felt extremely cold. When seen by Mr. R. she complained of extreme throbbing in the head, and great confusion when she sat up in bed, and vomited on taking any thing into the stomach; pulse hard, frequent, but regular. She was depleted and purged, &c. and was somewhat relieved. On the 14th of November, Mr. R. took from her in a full stream twelve ounces of blood, and her pulse still continuing hard, he let the blood flow till she lost eight or ten ounces more. "The pulse still continued hard and frequent, but she said she was relieved. She did not show the slightest disposition to faint after the bleeding, but on lying down she suddenly exclaimed, 'Oh dear, my heart! it will certainly burst: my feet feel so strange, they are quite dead: pray, put your hand on my heart, sir, it will come out.' I went immediately round to her bed-side, when she expired in my arms in a state similar to fainting.

"On examining the body, the viscera in general were found to be in a healthy state: there were slight adhesions of the lungs to the pleura; but the pericardium was much thickened, as if from previous inflammatory action, and distended. On opening it, a mass of dark coagulated blood presented itself, the heart being completely buried beneath its surface; on the inspection of which, we discovered that the right auricle was ruptured near the superior cava: its parietes were particularly thin and flaccid."—*Journal of Morbid Anatomy, &c. Vol. I. Part I.*

14. *Case of Rupture of the Left Ventricle of the Heart.* By JOHN ADAMS, Esq. Surgeon.—A stout man, aged forty-six years, temperate habits, for many years subject to great mental anxiety, in consequence of the misconduct of a near relative, was attacked, November 5th, whilst walking home, with a sense of weight and tightness on the left side of the chest. Nov. 8th. After passing a night of great mental distress, aggravated by having to perform a very painful task, he had a return of the sensations of weight, &c. which had hitherto only been felt during exertion; his breathing was interrupted under exertion; pulse 85, full, but easily compressed. He was purged, and in the evening took a dose of laudanum. Nov. 9, "had passed a night of great agony, both of body and mind: the pain in the region of the heart very severe, and extending along each arm, particularly the left; his pulse 130, full, and firm; tongue white and dry; countenance exceedingly anxious, and pale. Venæ sectio ad  $\frac{3}{4}$  xiv. He became faint during the bleeding, and vomited: somewhat relieved for a few moments, but as soon as the faintness went off, the pain, tightness, &c. returned as severe as before, the bowels not having acted since last evening, ordered hydr. subm. gr. vi. c. haust. rhei. His symptoms continued with unabated violence until half past one, when having raised himself on his left arm, to turn to his right side, he fell back in bed, and expired after a short but violent struggle.

"*Morbid Appearances.*—On opening the thorax, the pericardium appeared to be distended, and emitted, when divided, a quantity of serous fluid; but the heart was entirely concealed by an envelope of coagulated blood, which presented so imposing an appearance, that I stood for some minutes surveying it before I could proceed with the examination. The coagula were separated into three distinct layers. The removal of the first, which had a foliated appearance, exposed only the apex of the heart, the second a larger surface of that organ, but the third uncovered its lesion, which extended into the left ventricle, between the carneæ columnæ, close to the septum ventriculorum, and nearer to the apex than the base of the heart."—*Ibid.*

15. *Notes of Two Cases of Rupture of the Left Ventricle of the Heart.* By JOHN CROSS, Esq. Surgeon.—"I. A maiden lady, aged seventy-three, jolly, and having rosy cheeks, was in a violent passion one Sunday, and for a week afterwards complained of pain in the region of the heart, and a shortness of breathing, but went about till the expiration of that time, when she sent for me in

the evening. She was suffering so little from *these symptoms* as to debate about going out to dinner the next day. She passed a restless night, but was in the sitting room in the morning, and kept about till night, when she was unable to lie down in bed, and sat up with the hand applied to the region of the heart, on account of pain there. She expired before morning. Four ounces of coagulated blood were found in the pericardium. The heart is not enlarged, nor does it present any morbid appearances; the great vessels proceeding from it are equally healthy and well-shaped. The rupture of the left ventricle is in the anterior part of the heart, very near the septum of the ventricles, and one inch and a half from the apex. There is an irregular rent in the external serous covering of the heart, and in a few of the superficial muscular fibres, of half an inch in length, but deeper than this; the slit is not more than *one-eighth of an inch*, this being what we very properly consider the dimensions of the opening into the ventricle.

"II. The subject was an active old gentleman, with very florid cheeks, above seventy years of age, and whom I had complimented on his health and cheerfulness forty-eight hours before his death. He was exerting himself at a public meeting; whilst standing, he entered warmly into a debate, tottered, fell, and was found to be dead. Between seven and eight ounces of blood were found in the pericardium. The heart was very considerably enlarged, owing, no doubt, to the morbid state of some of the large vessels proceeding from the arch of the aorta; for the arteria innominata, just at its origin, was so diminished in its tube, by atheromatous deposition between its coats, as to leave a passage not more than one-eighth of an inch in diameter; and the left subclavian artery was similarly diseased and diminished one-half in its calibre. The rupture of the left ventricle is situated two inches from the apex, in the left wall of the ventricle, opposite to the septum of the ventricles; the whole thickness of the ventricle, (which is at this spot about one-third of an inch,) is opened by a slit, half an inch in length; but the rent in the outer membrane of the heart, and in some of the superficial muscular fibres, is above an inch long. These two cases contrast well, in the difference of time between the immediate cause of the injury and its fatal result, the bulk of the organ, and the state of the large vessels."—*Ibid.*

16. *Case of Rupture of the Left Ventricle of the Heart.* By G. H. WATSON, Esq.—A man, æt. 61, full habit, short stature, was prevented from sleeping for two or three nights, owing to a violent pain in his chest; pulse 75–80, regular. These symptoms abated on the fifth or sixth day, but they then suddenly returned and terminated the existence of the patient. On examination, a small, unequal, and apparently torn orifice appeared in the anterior portion of the left ventricle, through which the blood had passed into the pericardium. "The inner surface of the ventricle was deeply red for one or two lines from the orifice, forming an inflamed zone round it; one or two of the *carneæ columnæ* were separated from their attachments to the heart towards the apex, and their separated points bore the appearance of ulceration having been the cause of this lesion. The internal surface of the aorta, about an inch and a half above the semilunar valves, was very red; the heart was also very fat." Nothing else remarkable was observed—*Ibid.*

17. *Case of Angina Pectoris, and Ossified Cerebral Arteries.* By J. LEWIS, Esq. Surgeon.—A robust, muscular, and healthy man, aged sixty-seven, died suddenly, October 30th, 1826. Twice in the morning of that day, and once in the evening, just before he expired, he complained of a severe pain shooting across the bottom of his thorax, and darting to the middle of the upper right arm. *Dissection.*—Head. Dura mater thicker, and more dense than natural; brain unusually soft; right ventricle containing from "ten to fourteen drachms of perfectly clear serum, and the left from six to eight drachms of the like colourless fluid. The arteries at the base of the skull, particularly the vertebral and basi-

lary, were ossified in patches. The cerebellum appeared healthy, with the exception of being softened. Upon removing the cerebrum and cerebellum, there was found at the basis of the cranium between one and two ounces of bloody serum. Upon making sections of the cerebrum and cerebellum in various directions, there was no appearance of rupture or extravasation. Thorax. The left lung was distended with air, and adhered to the pleura universally. The right lung was healthy, and not adherent. The heart was very large, and fat, filling the pericardium; the coronary arteries were much ossified, but there was no other diseased appearance. Abdomen. The spleen adhered to the peritoneum, and was so tender that it broke down upon being detached. Some portions of the small intestines also adhered to the peritoneum. The abdomen and chest were covered with fat to the depth of two or three inches."

For a short time previous to his death he had been very forgetful, and his ideas were at times rather confused, and occasionally he would talk incoherently.—*Ibid.*

18. *Case of Chronic Inflammation and Partial Ossification of the Coronary and Vertebral Arteries, producing Angina Pectoris.* By H. J. GORE, Esq. Surgeon.—A man, æt. 57, middle size, muscular, had for some years past been subject to attacks of extreme difficulty of breathing, pain in the chest, and violent cough; which symptoms came on suddenly whilst he was engaged in any exercise, even walking at a moderate pace, ascending stairs, or performing any other motion that accelerated respiration. The horizontal posture could not be endured, bringing on dyspnœa and coughing; he always reclined with his shoulders raised. Whilst conversing, he fell, and instantly expired without the slightest struggle.

*Dissection.*—"Brain. The ventricles contained four or five ounces of fluid. The vertebral arteries were unequally enlarged, and partially ossified. In other respects, the brain and its membranes were sound. The abdominal viscera were healthy. Thoracic viscera. The lungs were perfectly healthy, but very much gorged with blood, even the upper surfaces appearing nearly black. There was considerable, but not recent adhesion of the lungs to the pleura costalis. The pericardium was healthy, but contained about two ounces of fluid. The coronary arteries were inflamed, and partially ossified."—*Ibid.*

19. *Case of Rupture of an Aneurism of the left Vertebral Artery.* By H. J. GORE.—The subject of this was a tall, muscular man, æt. 24, accustomed to drink spirits. October 20th, 1826, he was excessively drowsy, for which he had leeches applied to the temples, and took an aperient. This relieved him, and the next day he said he was quite well. In the evening, directly after going to bed, he suddenly became insensible, respiration laborious, and he immediately expired.

*Examination, sixteen hours after Death.*—"The membranes of the brain were much charged with venous blood. The substance of the brain was particularly soft, and had a peculiar yellowish-brown appearance. The ventricles contained about six ounces of water and a small quantity of coagulated blood, (about two drachms in each.) The plexus choroides was nearly white. At the base of the brain, there were about four ounces of coagulated blood, which had escaped from a small aneurism of the left vertebral artery, just before its junction with the right to form the basilar. Both vertebral arteries were in a diseased state, their tunics being much thickened in parts for about three-quarters of an inch in length, and several rings of a cartilaginous substance being deposited between them; but the basilar and carotids were healthy."—*Ibid.*

20. *Excessive Dilatation of the Aorta, and very Enlarged state of the Heart.* By D. PRICE, Esq. Surgeon.—CASE I. This patient, during the four years that he was under the care of Mr. P. ate well, slept well, had a tranquil pulse, cool skin, clean tongue, and his evacuations were healthy and natural in appearance, but he was always complaining of illness. He was always imagining that he was going to fall down, when he either walked, stood still, or rode in a carriage; but on horseback the sensation never annoyed him. Bleeding, purging, &c. were em-

ployed, but he counteracted the effects of all remedies by indulging his appetite, which was voracious. About eighteen months before his death, it became apparent that there was an unnatural condition of his heart or aorta. "From this period, the inconveniences consequent upon such an affection constantly increased, and became ultimately truly distressing. Every time the heart contracted, it struck the ribs with a force that made it audible at some distance, and the blood, as you are aware, could be distinctly heard whizzing through the artery, at the distance at which the practitioner usually places himself from the patient. On examination after death, the heart was found of a magnitude exceeding all belief. Its parietes resembled in *thickness* the heart of an ox more than that of a human being. The coronary vessels were very large, particularly the veins, which were gorged with blood. The ascending aorta was so much enlarged that the valves could not at all approximate to each other, and their function must consequently have been for some time very imperfect. There was, as might be expected, a larger quantity of fluid in the pericardium than usual, and also some effusion into the cavity of the pleura: all the other organs were in a healthy condition."

The patient "though short in stature, had a very capacious chest, and had been much noted as a wrestler, and also for extraordinary speed in running."

CASE II.—This patient had suffered from affection of the heart, upwards of ten years. Becoming violently agitated from fright, vomiting came on, which continued until his death, which took place in a few minutes. On dissection, the heart "appeared *pale and flabby*, and enormously enlarged. It measured from the base to the apex, eight inches and a half, and it was of a corresponding breadth. The semilunar valves had been, no doubt, in an useless condition for years, (verifying Sir Astley Cooper's opinion,) the ascending aorta was covered with large flakes of ossific matter, which protected and completely united it to the adjoining ribs. The coats of the artery had not, as I imagined, been converted into an aneurismal pouch; on the contrary, I found the dilatation of the vessel uniform throughout its extent. There were many patches of bone also on the descending aorta, and its calibre was greatly increased."—*Ibid.*

21. *On the Diseases of the Kidneys and Ureters.* By J. BOUILLAUD, M. D.—Dr. B. has frequently met with *hypertrophy of the kidneys*, it generally occurs only in one of these organs. It is recognised, according to Dr. B. by the following appearances. The kidney is a quarter, or a third, or perhaps even one-half, larger than the natural size. Its substance is firmer, more compact, and redder. It is probable that in such cases the renal artery is enlarged, although this fact has not been determined. Hypertrophy of the kidney occurs under the influence of various causes, which determine to it an unusual quantity of blood. The most likely circumstance to produce this kind of plethora in one kidney, is the existence of some obstruction to the passage of the blood towards the other. It happens, consequently, that hypertrophy of one kidney is frequently detected when the other is in a state of atrophy. Hypertrophy of the heart and of the external muscles, takes place equally under the same conditions which preside over the increased size of the kidney.

*Atrophy, or diminished nutrition of the kidneys.*—This disease M. B. has frequently seen. Its characters are diametrically opposite to those of hypertrophy of the organ. The size of the kidneys is less than natural; their substance is paler; they contain less blood, and appear shrunk. Whatever cause obstructs the current of blood to the kidneys, may produce an atrophy of them. In every such instance, M. B. has been able to demonstrate a greater or less obstruction to the free circulation of the blood. The pressure of an enlarged spleen has sometimes produced atrophy of the left kidney. The right kidney has been similarly affected by the continued, yet gradual, pressure of an enlarged liver. In other organs, as the heart, the lungs, the breast, the testicle, pressure frequently causes the same diminution of size.

*Infiltration of urine, and cysts of the kidneys.*—M. B. observes that no patho-

logist has hitherto described this affection; it is not, however, very rare, but it may easily escape the observation of a careless practitioner; the following are the characters of it: on the surface of the kidneys may be seen several round vesicles, which raise the covering membrane of these organs. These vesicles appear to be small cysts in the substance of the kidney, and are probably formed by a certain quantity of urine, which has distended the uriniferous tubes, in consequence of some obstruction to the passage of the fluid. M. B. has seen some of these cysts as large as a cherry. Sometimes, instead of numerous vesicles, he has detached one large sac, which he presumed to have been formed from the union of several smaller ones, of which the parietes had ruptured. He has found the whole of the kidney transformed into one large sac, containing either a transparent serous or turbid fluid.

*Inflammation of the kidneys, and of the disorganizations which follow inflammation.*—In consequence of their peculiar structure, the kidneys do not easily become the seat of those disorganizations which result from inflammation. Nephritis is marked by the following appearances: redness, tumefaction, presence of pus, softening of the structure of the organ, abscesses, ulceration of the external surface, conversion of the parenchymatous substance into a tuberculous or encephaloid matter, which is, in a great measure, the product of the diseased secretion of the affected kidney. Cysts, either on the surface, or in the substance of the kidney, may result from inflammation. In two or three cases, M. B. has found the kidney converted into a fatty yellowish substance. The symptoms of the various ulcerations which the kidneys occasionally undergo, are very obscure; this circumstance will not be considered so extraordinary when we consider, first, that the deep-seated situation of the kidney embarrasses our examinations; secondly, that derangement of the function of the kidneys produces similar symptoms to those which result from various affections of the bladder and ureters; thirdly, that pain is by no means a constant attendant upon renal disease. If we are to rely upon the statement of most pathologists, acute pain is the almost inseparable attendant upon inflammation of the kidneys; it is not denied that such is frequently the case, but M. B. affirms that he has observed the most decided marks of renal inflammation in the bodies of patients, who had never complained of pain in the region of the kidneys. This absence of pain may be more easily conceived, when we reflect that the kidneys in a natural state are but slightly sensible. Violent pain is not seldom complained of in the region of the kidneys, when no disease of them is to be detected. The presence of a certain quantity of blood or pus in the urine, when there exists no disease of the bladder, is a symptom of some affection of the kidney; when to this symptom is united a smart attack of fever, the existence of nephritis may be strongly presumed. At the commencement of the disease, if both kidneys are affected, an almost total suppression of urine takes place. Chronic nephritis, like most other internal inflammations of a chronic character, produces a slow fever, which destroys the patient by throwing him into that state termed renal consumption. When the affected kidney continues the performance of its functions, the urine is much altered in its appearance, but sometimes it ceases to secrete; the urine being formed only by the healthy kidney, presents no unusual appearance, and the diagnosis of the disease is then extremely difficult. If both kidneys are simultaneously disorganised, so that a total cessation of the secretion of urine takes place, the same phenomena will occur as we observe in animals in which both ureters are tied, or both kidneys removed: violent fevers quickly arise, and a strong smell of urine is exhaled from the body. Is hypertrophy of the kidneys ever the cause of diabetes? M. B. is not furnished with sufficient facts to justify him in giving a positive answer to this question, but he has observed hypertrophy of the kidneys where the patient had been affected with diabetes. The ureters, like all other parts of the body, may suffer from inflammation, and undergo various alterations of structure in consequence; their canals may be much enlarged, diminished, or entirely obliterated; dilatation of the ureter may arise from any cause which obstructs the free passage of the urine into the blad-



der; contraction or obliteration may follow from any accidental compression from inflammation of the internal membrane which lines the cavity, or from the cessation of the passage of the urine through the canal, from the function of the kidney being no longer performed in consequence of disease. The symptoms of affections of the ureters are as obscure as those which attend diseases of the kidneys. If both canals are obliterated at the same time, death would speedily result; but if one ureter only is obstructed, the calibre of the other will be increased considerably, from the additional duty which it will have to perform under such circumstances. In support of these observations, M. Bouillaud details several interesting cases.—*Journal Complementaire, July, 1828.*

22. *On the Anatomical Characters of Tumours, designated by the names of lipoma and steatoma.* By A. N. GENDRIN, M. D.—Dr. Gendrin has published in his *Journal* for May last, a very interesting memoir on this subject. The following are his conclusions; 1st. Lipoma's are evidently adipose tumours, as has been known since the time of Littre, who first described them. 2d. The structure of the adipose tissue of these tumours, differs a little from that in normal fatty accumulations, and in local polysarcoma. 3d. That lipoma's although implanted in the subcutaneous cellular tissue, have an independent life, since they receive vessels which have a special distribution, and which are isolated from the adjacent parts by a bed of cellular tissue, not adipose. 4th. That lipoma's being thus accidental adipose organs, have, in their own organization, all the principles of their development and of their growth, which is sometimes very rapid. 5th. Finally, that their complete extirpation is the only means of cure; that it can be performed without any other danger than that necessary from the incisions, and that it will always be followed by a radical cure, when the incisions are limited to the cellular bed which isolates these tumours.

Steatomas present themselves in two distinct states: 1st. Imperfect. 2d. Degenerated or softened. The following are M. Gendrin's conclusions respecting them. 1st. That steatoma's differ essentially from lipoma's even in their external characters. 2d. That steatomatous tissue constitutes, like scirrhus and the encephaloide tissue, one of the forms of cancerous affections. It can be developed in all the organs; it is not in the form of wen, (loupe,) that it is most frequently seen. 3d. The steatomatous tissue has in its state of imperfection, in its state of softening, and in its state of ulceration, some characters which distinguish it from other carcinomatous tissues. 4th. It is still, however, a form of carcinoma, since it coincides with the other varieties, and even presents on the lips ulcerations which only affect the surface, and with which it is observed that individuals from whom steatomas have been extirpated, are liable to be attacked. Sometimes they are even simultaneously affected with carcinomas, under the form of scirrhus, encephaloide, or ulcerated steatoma, either in the same situation, or in different organs, as takes place in those from whom true scirrhus has been extirpated. 5th. Undeveloped steatoma is susceptible of cicatrizing, when it has been wounded with a cutting instrument, though it still continues to advance. 6th. That it is possible, and even proper, to remove a portion of a steatoma which is deeply situated, and which cannot be entirely extirpated, in order to relieve the patient from the effect of the sanies and carcinomatous ulceration which occurs at its surface; but the amputation must be performed in the undeveloped portion of the tumour.

Mr. G. offers the following general conclusions. 1st. That the distinction between lipoma and steatoma is founded on well marked semeiological and anatomical characters. 2d. That particular attention must be paid to the disposition and extent of the roots of noncysted wens, before extirpation is attempted. 3d. That these wens are accidental organs, which have a peculiar organization, entirely different from that of the other tissues; hence their development can never be explained in a satisfactory manner by the anormal or morbid development of the part or parts in which they are situated.

23. *Amnesia*.—In our original department we have inserted a very interesting case of amnesia by Dr. JACKSON; a case of the same disease has been recently met with by Dr. CHAILLY, and is related in the *Archives G n rale*, for 1828. A man aged fifty-seven, whilst playing at *tric-trac* in a warm room, felt a sudden pain in his left temple, and at the same moment lost the power of expressing his thoughts. His memory betrayed him every time he attempted to use a substantive word; all words of that kind being replaced by *sonnez* and *six-cinq*, terms used in the game he had been playing. When Dr. C. saw him, his face was flushed, and he complained by gestures, of pain in the left temple, but was unable to say further than *Pai l  un sonnez*. Every thing was *sonnez* or *six-cinq* with him.

By the use of copious bleeding, general and local, and revulsives, he was entirely restored.

24. *Case of Rupture of the Bladder, with separation of the Symphysis Pubis*.—“A stout, powerful man,  tat 35, was brought to the Worcester Infirmary, on the 5th of June, in the evening, having met with an accident, from a colt rearing up and falling upon him, about three hours before. His face was pallid and distressed; pulse very feeble. He complained of great pain about the left hip, particularly on motion. He had not passed any urine since the accident, or for three hours before. The person who brought him said that at the time of the accident he was intoxicated.

“A gum catheter was passed, and left in the bladder; about a pint of bloody urine was drawn off. He was ordered half an ounce of brandy every two hours.

“June 6th.—The pulse had got up. There was very extensive ecchymosis over the pubes and both groins; great tenderness and tension over the abdomen; no stool; vomiting very frequent.

“Applr. Hirud. xxx. abdom.—R. Hyd. Submur. gr. x.—Pulv. Jalap. gr. x. fiat. bol. j. stat. sum.—Mist. Cath. quartis horis.—Adhib. Enema vespere.

“7th.—Vomiting continues of dark-coloured matter; pulse hardly perceptible; intellect clear; no stool; urine flows through the catheter. Tension and tenderness of the abdomen increased.

“8th.—Died this morning.

“*Sectio cadaveris*.—Integuments, and the whole of the abdomen below the umbilicus, much contused. The symphysis pubis was separated throughout its whole extent, so as to allow the thumb to be introduced between the bones. The bladder was ruptured transversely through the fundus and peritoneum covering it, to the extent of about four inches. A small quantity of urine, mixed with pus, was discovered in the pelvis. The intestines showed patches of inflammation here and there; and about three inches of the intestinum ilium was quite black, from ecchymosis between its coats.”—*Lond. Med. and Phys. Journ. Sept.* 1828.

25. *Disease of the Stomach, in which a well-defined Perforation takes place in the Tunics of that Organ, without any Softening of their Structure*. By Dr. C. H. EBERMAIER.—CASE I.—A woman, twenty-two years of age, of robust form, sought assistance for ophthalmia, under which she had laboured for several weeks. This affection was speedily subdued. Dr. E. was then informed that for many years the patient had suffered, almost constantly, from a train of symptoms which would hardly have been suspected from her general appearance of good health. The only mark of ill health was a slight paleness of the face. At the age of eighteen she began to menstruate, and, after having continued regular for about a year, the menses ceased, without any evident cause. For some months she continued in good health. At the end of this period, the digestive functions were much disturbed: her stomach ceased to bear her accustomed food; even the lightest aliment produced considerable pain in the stomach, acid eructations, and pains in the pr cordia. These symptoms gradually increased both in duration and severity, and frequently appeared suddenly after the patient had



eaten. Vomiting soon took place some hours after food had been taken; half-digested aliment, mixed with mucus, was thrown from the stomach. The symptoms were not, however, relieved by the stomach being thus freed from its contents. At length the vomiting became almost constant, even after the mildest food, but it was not so violent. The symptoms were not yet, however, so severe as to confine the patient to bed, or to prevent her from following her ordinary occupations, excepting occasionally for a few hours. The nutrition of the body did not appear to be much diminished. So far from this being the case, there were intervals of some months in which the patient enjoyed comparative ease, and during which the spasms of the stomach were so much diminished as to lead to the hope of radically curing a disease which had been considered more distressing than dangerous.

"During the first two years, a great variety of means were had recourse to, without any avail. The whole tribe of antispasmodics and emmenagogues were exhausted in vain. The menstrual discharge did not appear. The imperfect digestion, the vomiting, the dull pain in the region of the præcordia, and occasional attacks of fever, continued without diminution. The patient consequently lost all confidence in the power of medicine, and resolved to trust to the efforts of nature alone; which she did during one year.

"It was presumed that the derangement of the stomach was produced by the total suppression of the menstrual discharge.

"Having again submitted herself to the direction of her physician, she was bled in the foot; a mixture of cream of tartar, sulphur, and chamomile infusion was taken; the feet were frequently immersed in warm water; and the lower part of the abdomen was rubbed with stimulating liniments.

"For several months Dr. Ebermaier entirely lost sight of her. He was informed that she was relieved for a short time by the above treatment, but that all the symptoms then returned with their original severity. She was still able to perform her domestic duties, but was incapable of working in the field, on account of the pain she experienced in bending her body. Pressure did not increase the pain she complained of in the epigastrium. She every day carried milk and vegetables the distance of a mile, without inconvenience. The menses had not appeared. Frequently and irregularly spontaneous and easy vomiting took place, two or three hours after she had taken food.

"At the end of about seven weeks she died suddenly, to the astonishment of Dr. E. who had still viewed her malady with little apprehension.

"Until the day of her death she continued lively in spirit, and capable of performing moderate labour. She rose early, took a little bread and coffee, and went into the garden to gather fruit, which she was to carry to market. She was in the act of stooping, when she suddenly screamed out, with great anxiety, "I am dying," and fell, apparently expiring in the greatest torture. Her hands and feet became cold; she complained of excessive pain in the belly; the thirst was inextinguishable, and her general restlessness and anxiety very distressing. There was now no disposition to vomit. She died in a short time.

"Upon examining the body, a considerable quantity of fluid was found in the abdomen. In the stomach was found a regularly-formed hole, on the anterior part, through which the contents had of course escaped into the abdomen, together with the large quantity of water the patient had taken during the last hours of her existence. Around this aperture there was not the slightest appearance of inflammation, redness, suppuration, ulceration, or erosion, nor any organic lesion whatever. The internal margin of the orifice was perfectly smooth, and the surrounding parts as free from any morbid appearance as the external. The hole, in fact, presented the same appearance as one which would be made in a piece of leather with a punch.

"CASE II.—A man, fifty years of age, of a sanguine and bilious temperament, had complained every two or three months for the last five years, of pains in the belly. He died suddenly. On the right anterior surface of the stomach, a hole about the size of a two-france piece, with callous edges, was found. In the

small intestines were observed several gangrenous spots. It was ascertained that, five years before the commencement of the symptoms under which he had laboured, he had received a severe blow from the pommel of a saddle on the epigastric region.

"CASE III.—A girl, fifteen years old, had suffered for two or three years from slight pains in the belly. As her sufferings increased, medical assistance was sought for. She was found to have all the symptoms of enteritis; the face was pale and anxious; urine small in quantity, and of a deep colour; bowels constipated. The patient could assign no cause for the attack. Some years before she had had a similar attack, and since this time she had been occasionally subject to pains in the stomach.—Ten ounces of blood were taken. A clyster with castor-oil was administered, and emollient fomentations applied to the abdomen. She died in half an hour.

"*Appearances post mortem.*—The omentum adhered to the peritoneum, and at different points to the intestines. The abdomen contained a good deal of serous fluid, mixed with coagulable lymph. Throughout the small intestines there were traces of inflammation. The large intestines were also slightly inflamed in different parts, and much distended with air. The liver was smaller and paler than usual. The stomach was empty, and inflamed in different spots. Near the cardiac extremity a circular hole was found, of about nine lines in diameter: its edges were smooth and regular. At the opposite side of the stomach there was another perforation, of an oblong form, but not passing entirely through the external membrane. It appeared as if it had been once completely perforated, but that the orifice had subsequently closed.

"CASE IV.—A robust man was attacked with a fixed pain in the epigastrium, accompanied by so distressing a throbbing that he was twice bled. After his meals, he vomited both solid and liquid food. For a long time he confined himself to a very light diet, but without any benefit. For a considerable period he suffered from attacks of fever, the pain and vomiting still continuing. He was frequently bled. He at length threw up a considerable quantity of blood, mingled with pieces of substance, some resembling liver, and others like fragments of the villous coat of the stomach. For about three weeks he went on with occasional variations in the severity of his symptoms, when, after a very severe accession of pain and vomiting, he fell a sacrifice to the disease.

"Upon examination, the abdominal viscera were found swimming in a mixture of oil and other liquids which the patient had taken. The stomach was free from adhesions to any of the surrounding parts, and without any traces of inflammation. On the right and anterior part of the small curvature a round hole was perceived, about six or seven lines in diameter. The interior of the stomach was perfectly free from any traces of inflammation. The internal orifice of the perforation was much larger than the external. The edges, examined with the finger, appeared hard, solid, and of a cartilaginous nature.

"CASE V.—A man, twenty-eight years of age, had been frequently troubled, during his youth, with affections of his stomach, which had been attributed to worms. For many years he enjoyed an apparently good state of health. Without any previous indisposition, he was attacked suddenly one evening with violent pain in the belly, which almost bent him double. He was carried home on a board, and threw up from his stomach some bread and wine which he had taken in the morning. A similar mode of treatment was adopted to that in the above cases, but without effect. He died in a few hours.

"*Appearances on dissection.*—The contents of the stomach had escaped into the abdomen. At the small curvature of the stomach, about an inch from the pylorus, a hole was found, about a line and a half in diameter, and rounded as if it had been made with a punch. This hole was surrounded by a red circle. The interior of the stomach, and every other organ, were perfectly healthy.

"CASE VI.—Desgranges attended a woman who for four years had been subject to pains in the stomach, from the severity of which she at length died. She never vomited. A similar aperture was found in the stomach to that above

described. In other respects the stomach was perfectly healthy. The intestines were slightly inflamed.

"CASE VII.—A man had been subject for a considerable time to pains in the stomach. He had sometimes long intervals of ease. He gradually emaciated. Vomiting took place; and, after great and tedious suffering, he died. The pylorus was found in a scirrhus state. Two apertures were seen in the stomach, one an inch in diameter, the other much smaller. There was no appearance of inflammation in any part."—*Lond. Med. and Phys. Journ.* Oct. 1828, from the *Journal Complementary*, July, 1828.

26. *Hemiplegia in a Child nine months old, produced by the Mother giving it the Breast immediately after being in a Violent Rage*—Dr. BERLYN observes in the *Neue Jahrbücher*, Vol. II. 1827, that he has met with a case of this kind. The little patient recovered in a few days.—*Bull. des Sc. Méd.* June, 1828.

27. *Polypus of the Heart*.—M. RIGACCI, of Florence, mentions a case where a well organized polypus was found after death in the heart. A young woman, affected with some disease of the heart, supposed to be an aneurismal dilatation of the left ventricle, after having been treated with digitalis and other means, died on the 18th of December, 1827. On examination of the body after death there was found, among other things, a body of a fleshy appearance, similar to that called sarcoma, in the left ventricle of the heart. This ventricle, very much enlarged, had its walls much reduced in thickness. From the interventricular partition arose one of the roots of the morbid production. Another root took its rise from the auriculo-ventricular valve, by two peduncles. These two united, and formed a round body, two inches and two lines in length, which terminated by a ragged point, the surface of which did not appear covered by any membranous layer. On the external surface of the polypus were seen three reddish fillets, which, arising from the *carneæ columnæ*, extended to the morbid production, and appeared to be lost in its substance. These, examined with a good lens, were found full of reddish fluid, and were recognised as sanguiferous vessels. In order to prove the fact the more satisfactorily, two of the fillets were injected with mercury. One of them burst at the distance of an inch from the introduction of the tube, but the other was completely filled, and exhibited its divisions and ramuscles, which became lost in the substance of the polypus. The polypus, attentively dissected, was discovered to be formed of four or five fibrous strata, superposed one upon the other, and intimately united. The author remarks that these observations do not permit a doubt that this polypus was properly organized, and that its formation took place before death.—*Antologia Firenze*, Feb. 1828.

28. *Enormous Hypertrophy of the Heart, &c.*—Dr. JOHNSON saw the patient, (Dr. Cox,) about December, 1827, and examined his chest with attention. The action of the heart was observed to be excessive—"the organ beat over a large space—the arteries throbbed violently—the jugular veins pulsated—the "*bruit de scie*," was very distinctly heard—the respiratory sound was audible in all parts of the chest, which also sounded well on percussion. Dr. Cox appeared very much agitated and nervous; it was, therefore, hoped that part, at least, of the great action of the heart was attributable to nervous palpitation. The countenance was pallid, and inclined to be sallow—the breathing was disturbed by exertion, especially by ascending stairs or high ground. In other respects, there was no apparent disorder of any organ in the body. Each subsequent examination tended to increase the fear, that active enlargement of the heart was going on, and, in this opinion, Dr. Clark, and several other medical friends, concurred. It was rather remarkable, however, that two or three glasses of

"For much additional information upon this very interesting, and as yet obscure subject, our readers may consult the *Dictionnaire des Sciences Méd.* Tome XLVI. p. 314, art. *Perforation*, illustrated by plates."

wine invariably lessened the action of the heart, and ameliorated the patient's distressing feelings—especially the pain in the region of the heart, of which Dr. C. often complained. Local depletion, counter-irritation, digitalis, and diuretics, were long and vigorously employed, but not, we believe, with any decided effect. Dr. J. lost sight of the patient for seven or eight months, and did not see him till the 10th of August, ten days before the fatal termination of the disease. Dr. Cox called on Dr. Johnson, and stated that his complaint had recently taken an entire new turn. The distress in the region of the heart was greatly mitigated, and his principal sufferings were referred to the epigastrium, which was so exquisitely tender, and withal so prominent, that a physician that morning thought there was acute inflammation and enlargement of the liver. On examination of the chest, there did not appear to be any change in the physical signs of hypertrophy of the heart—on the contrary, they seemed all to have increased. But the tenderness and pain in the epigastrium, (where, by the way, there was a tremendous pulsation,) masked the other feelings, or engrossed Dr. Cox's entire attention. Leeches, blisters, two general bleedings, gave little or no relief. The breathing became so embarrassed that he was obliged to be propped up in bed, and he expressed himself as always on the brink of suffocation. In this dreadful state he lingered till Wednesday, the 20th of August, when death put a period to his sufferings.

The body was examined by Dr. Hodgkin, in presence of Mr. Morrah, Dr. Johnson, and two medical students. The surface was slightly tinged yellow, and the ankles were œdematous. In the chest there were better than three pints of reddish serum, but no marks of inflammation. The heart was so enormously enlarged, that neither Dr. Hodgkin, Mr. Morrah, nor Dr. Johnson, had ever seen one of such a size before. The cavities were dilated as well as the parietes thickened. There was nothing the matter with the mitral or tricuspid valves; but one of the semilunar valves of the aorta was dilated into a pouch that would receive the end of the thumb up to nearly the first joint. The inner coat of the aorta, opposite to this valve, was thickened and irregularly raised. There was no other morbid appearance in the arterial system. The lungs, especially on the left side, were condensed, but not like hepatization from inflammation. In the upper lobe of the right lung was found some small masses of calcareous deposit, and the remains of a tuberculous excavation, completely lined with a shining membrane, and communicating with one of the bronchia. The liver was rather smaller than usual, hard, and curiously mottled with yellow and red specks, so as to present an extremely diseased appearance. The spleen was very much indurated, and carnified. But the most remarkable phenomenon in the abdomen, was the state of the mucous membrane of the stomach and intestines. Besides a very minute injection of the vessels, the membrane was, in a very great extent of surface, completely *œdematous*. The rugæ in the intestines presented the appearance of bladders filled with a thick but pretty clear fluid, as in some blisters.

Dr. Hodgkin was of opinion that the state of the semilunar valve in the aorta, as above detailed, might be the cause of the hypertrophy, as not only keeping up irritation in the neighbourhood of the ventricle, but as checking the issue of blood from the left side of the heart. The writer of this notice cannot entirely coincide with Dr. H. on this point. The action of all tangible arteries was in proportion to that of the heart, and there did not appear to be the least check to the issue from the ventricle into the aorta.\* The patient had had acute rheumatism, and this, combined perhaps with a faulty constitution from birth, may have determined the disease of the heart. The dissection was interesting in another point of view. It showed the natural cure of a tuberculous excava-

\* The rush of blood, however, past this enlarged valve, at each stroke of the ventricle, was evidently the cause of the "*bruit de scie*," or "stroke of a saw," which was heard corresponding with the pulse and the ventricular contractions. It is difficult to conceive the cause of this enlargement of the valve, in a direction *contrary to the current* of the blood. The only way in which it can be accounted for, is a frequent attempt at *retrogradation* in the circulation through the aorta, as it is only then that the semilunar valves can be put on the stretch.

tion—in short, Dr. Cox must, at one time, have had tuberculous expectoration, or, in other words, phthisis. Considering that two, if not three, of his brothers died of phthisis, it is remarkable that a broken down tubercle should have terminated favourably in such a constitution. There were no other tubercles, however, in the lungs. The patient bore his dreadful sufferings during the last ten days of his life, with heroic firmness of mind, although he was conscious of the fatal nature of the malady!—*Med. Chir. Rev. Oct. 1828.*

29. *On Tubercles.*—Dr. BOULLAND, in a very erudite and interesting paper on the accidental heterologous tissues, in the *Journal des Progrès, Vol. IV.*, to which we have already called the attention of our readers,\* establishes the following facts, respecting the mode of production of tubercles, and which we quote as confirmatory of the views of Dr. Alison; see p. 434.

1st, They are the result of a species of morbid secretion.

2d, This secretion, like all the normal secretions, occurs under the influence of an active sanguineous congestion.

3d, They can be developed as a result of local inflammation, or under the influence of a mechanical irritating cause, without predisposition, and that consequently, it cannot be admitted that they are developed without an appreciable cause, and, in consequence of a general affection.

4th, That there are some cases on the contrary, where it is impossible not to admit this predisposition, of some cause upon which we would make it depend; causes, which in the present state of the science, must be regarded as hypothetical, and which are the alteration of the fluids, alteration of the nervous system, hereditary constitutions, &c.

The actual state of our knowledge respecting tubercles, may be reduced according to Dr B., to the following positive facts.

1st, The tuberculous matter is a variety of pus, the principal character of which is its disposition to concreate. 2d, It is produced by a species of morbid secretion. 3d, It is at first deposited in a liquid state, and concretes from the circumference to the centre. 4th, It may occur in all the organs capable of secreting pus. 5th, It can assume, without being different itself, different forms, which appear to depend only on the conformation of the particular organs, in which it is situated; thus it may be infiltrated, in round, or irregular masses, encysted or free.

The hypothetical state of our knowledge on this subject, consists in the following questions, towards the solution of which, researches may be usefully directed. 1st, Is there a particular solid organic element, which exclusively produces tuberculous matter? 2d, Is there a particular alteration of the blood, or of the other fluids, in the state called the tuberculous diathesis? 3d, Upon what other cause can the modification of constitution, which predisposes to the formation of tuberculous matter depend?

## MATERIA MEDICA.

30. *On the Therapeutic Properties of Morphine.* By V. BALLY.—A little bitter taste in the mouth, is, according to M. Bally, the only effect produced on the mouth and œsophagus by morphine. "It occasions no thirst, redness of the tongue or gums, or swelling of the tonsils. When given in moderate doses, morphine produces no loss of appetite or any other disorder of the digestive functions; wherein it differs greatly in its effects from belladonna. In most constitutions, however, it produces vomiting, if administered in full doses. This property it appears to possess in a very high degree, which is a great obstacle

\* Vol. I. p. 444.